

# **SPEAKER SYSTEM**

# **Installation Series**

IF2115M/64(W), IF2115M/95(W), IF2115M/99(W), IF2112M/64(W), IF2112M/95(W), IF2112M/99(W)

# **OWNER'S MANUAL**

Thank you for choosing this Yamaha speaker system. In order to take maximum advantage of the speaker's features and ensure optimum performance and longevity, please read this manual carefully before using the speaker system. Keep the manual in safe place for future reference.

# BEDIENUNGSANLEITUNG

Vielen Dank für die Auswahl dieses Lautsprechersystems von Yamaha. Damit Sie die Eigenschaften dieses Lautsprechers optimal nutzen können, und um maximale Leistung und Lebensdauer sicherzustellen, lesen Sie bitte vor der Inbetriebnahme diese Anleitung sorgfältig durch. Bitte bewahren Sie diese Anleitung zum späteren Nachschlagen an einem sicheren Ort auf.

# MODE D'EMPLOI

Nous vous remercions d'avoir acheté ces enceintes Yamaha. Pour obtenir les performances optimales de vos enceintes et garantir une longévité maximale, lisez attentivement ce mode d'emploi avant d'utiliser les enceintes. Conservez-le en lieu sûr pour pouvoir vous y référer ultérieurement.

# MANUAL DE INSTRUCCIONES

Gracias por escoger este sistema de altavoces Yamaha. A fin de aprovechar al máximo las características de los altavoces y obtener un rendimiento y durabilidad óptimos, lea atentamente este manual antes de utilizar el sistema. Guarde este manual en un lugar seguro para futuras consultas.

# 取扱説明書

このたびは、ヤマハ製品をお買い求めいただきまして、まことにありがとうございます。 スピーカーの優れた性能を十分に生かして、末永くご愛用いただくために、この取扱説明書をご使用の前に必ずお読みください。

# **PRECAUTIONS**

### PLEASE READ CAREFULLY BEFORE PROCEEDING

\* Please keep this manual in a safe place for future reference.



# CAUTION

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the device or other property. These precautions include, but are not limited to, the following:

#### Location

- Always consult qualified Yamaha service personnel if the device installation requires construction work, and make sure to observe the following precautions.
  - Choose mounting hardware and an installation location that can support the weight of the device.
  - Avoid locations that are exposed to constant vibration.
  - Make sure to use the specified hardware.
- Inspect the device periodically.
- When transporting or moving the device, always use two or more people. Attempting to lift the device by yourself may damage your back, result in other injury, or cause damage to the device itself.
- Before moving the device, remove all connected cables.
- Do not expose the device to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not place the device in an unstable position where it might accidentally fall over.

#### **Connections**

- Before connecting the device to other devices, turn off the power for all devices. Before turning the power on or off for all devices, set all volume levels to minimum.
- Use only speaker cables for connecting speakers to the speaker jacks. Use of other types of cables may result in fire.
- Be sure to observe the amplifier's rated load impedance (see page 14), particularly when connecting speakers in parallel. Connecting an impedance load outside the amplifier's rated range can damage the amplifier.

### **Handling caution**

- When choosing a power amplifier to use with your speakers, make sure that its power output matches the speakers' power capacity (refer to the Specifications on page 14).
  Even if the amplifier's power output is lower than the speakers' power capacity, the speakers may be damaged when clipping of a high input signal occurs. The following may cause damage to speakers:
  - Feedback caused when using a microphone.
  - Continuous high sound pressure level produced by electronic instruments.
  - Continuous high-power output of distorted signals.
  - Popping noises caused by turning on equipment, or by connecting or disconnecting system components while the amplifier is turned on.
- When turning on the AC power in your audio system, always turn on the power amplifier LAST, to avoid speaker damage.
  When turning the power off, the power amplifier should be turned off FIRST for the same reason.
- Do not operate this device at high volume levels or at a level that is uncomfortable, since it is capable of producing sound levels that could cause permanent hearing loss. If you experience any discomfort or ringing in the ears, or suspect an hearing loss, you should consult an audiologist.

Yamaha cannot be held responsible for damage caused by improper use or modifications to the device.

- \* Illustrations herein are for explanatory purposes only, and may not match actual appearance during operation.
- \* Company names and product names herein are trademarks or registered trademarks of their respective companies.

For details on signal processor settings when driving speakers with the use of multiple power amplifiers, please refer to the web site below.

Yamaha Pro Audio global web site http://www.yamahaproaudio.com/

# **Bi-Amp/Passive switch**

Select the Bi-Amp mode (bi-amp drive) or the Passive mode (full-range drive).



Do not change the Bi-amp/Passive setting while the speaker is in use.



# **Neutrik Speakon NL4 plug wiring**

Connect the plugs as shown below.



Be sure to use proper speaker cable - not shielded instrument or line cable - for all speaker connections.



NEUTRIK plug	Bi-Amp	Passive
1+	LF+	+
1-	LF-	_
2+	HF+	
2-	HF-	

NOTE The Speakon jack and barrier strip terminals are connected in parallel.

# **Suspended Installation**

# riangle CAUTION

- The strength of the suspension points on the speaker is 60 kg per point (maximum).
- Before doing any installation or construction work, consult with an installation expert.
- When choosing the installation location, suspension wire and mounting hardware, make sure all are strong enough to support the weight of the speaker.
- Some fittings may deteriorate over extended periods of time due to wear and or corrosion. For optimum safety, the installation should be checked thoroughly at regular intervals.

Yamaha cannot be held responsible for damage or injury caused by insufficient strength of the support structure or improper installation.

# ■ Using eye bolts for suspension

For optimum safety, make sure to carefully follow the precautions below.

# 

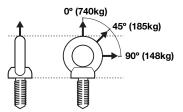
- Use only the supplied eye bolts.
- Use three or more eye bolts for suspended installations.
- Use the optional array frame if you intend to suspend a speaker from another suspended speaker.
- Install the eye bolts to multiple surfaces of the speaker, not just one surface.

### ■ Eye bolt strength

Keep in mind that the strength of the eye bolt differs depending on the suspension angle of the speaker. Make sure that the load for each eye bolt is less than 740 kg when suspending at an angle of 0 degrees, and less than 185 kg at an angle of 45 degrees.

## riangle CAUTION

When using the eye bolts, make sure that the suspension angle is within the range of 0 to 45 degrees, as shown below.



# riangle CAUTION

Do not suspend the eye bolts as shown in the diagram below.

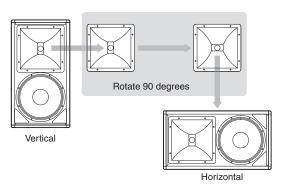


## Rotatable horn

- 1. Remove all fixing screws on the grille, and remove the grille from the speaker.
- 2. Remove all screws installed on the horn, pull out the horn from the speaker, rotate the horn 90 degrees, and re-install the horn to the speaker.

# **⚠** CAUTION

Be careful when rotating the horn so that you do not accidentally cut the connection wires connected to the horn driver.



# **Specifications**

System Type	Middle power 2-way full-range speaker																		
Model	IF2112M/64(W)			IF2112M/95(W)		IF2112M/99(W)		IF2115M/64(W)			IF2115M/95(W)			IF2115M/99(W)					
Specifications/ Drive Mode	Passive Bi-amp		Passive Bi-amp		Passive Bi-amp		Passive	e Bi-amp		Passive	e Bi-amp		Passive	ve Bi-amp					
Frequency Range (-10dB) (4π)*1	55 Hz-20	ok Hz (Bi-	amp mod	e)	-			1		45 Hz-20k Hz (Bi-amp mode)									
Frequency Range (±3dB) (4π)*1	<sup>1</sup> 60 Hz-20k Hz (Bi-amp mode) 55 Hz-20k Hz (E												le)						
Nominal Coverage (H x V, -6dB)	IF2112M/95(W): 90° x 50°, can be rotated to 50° x 90°									F2115M/64(W): 60° x 40°, can be rotated to 40° x 60°  F2115M/95(W): 90° x 50°, can be rotated to 50° x 90°  F2115M/99(W): 90° x 90°									
Power Rating	350 W <sup>*2</sup>	(AES)	HF: 60 W (AES)	350 W <sup>*2</sup>	LF: 350W (AES)	HF: 60 W (AES)	350 W <sup>*2</sup>	(AES)	HF: 60 W (AES)	350 W <sup>*2</sup>	(AES)	HF: 60 W (AES)	350 W <sup>*2</sup>	(AES)	HF: 60 W (AES)	350 W*2	(AES)	HF: 60 W (AES)	
Nominal Impedance	8 ohms	LF: 8 ohms	HF: 8 ohms	8 ohms	LF: 8 ohms	HF: 8 ohms	8 ohms	LF: 8 ohms	HF: 8 ohms	8 ohms	LF: 8 ohms	HF: 8 ohms	8 ohms	LF: 8 ohms	HF: 8 ohms	8 ohms	LF: 8 ohms	HF: 8 ohms	
Sensitivity (1W@1m)	95dB SPL	LF: 96dB SPL	HF: 110dB SPL	95dB SPL	LF: 96dB SPL	HF: 108dB SPL	95dB SPL	LF: 96dB SPL	HF: 108dB SPL	97dB SPL	LF: 98dB SPL	HF: 110dB SPL	97dB SPL	LF: 98dB SPL	HF: 108dB SPL	97dB SPL	LF: 98dB SPL	HF: 108dB SPL	
Calculated Peak SPL	126dB SPL	LF: 127dB SPL	HF: 134dB SPL	126dB SPL	LF: 127dB SPL	HF: 132dB SPL	126dB SPL	LF: 127dB SPL	HF: 132dB SPL	128dB SPL	LF: 130dB SPL	HF: 134dB SPL	128dB SPL	LF: 130dB SPL	HF: 132dB SPL	128dB SPL	LF: 130dB SPL	HF: 132dB SPL	
Calculated Continuous SPL	120dB SPL	LF: 121dB SPL	HF: 128dB SPL	120dB SPL	LF: 121dB SPL	HF: 126dB SPL	120dB SPL	LF: 121dB SPL	HF: 126dB SPL	122dB SPL	LF: 124dB SPL	HF: 128dB SPL	122dB SPL	LF: 124dB SPL	HF: 126dB SPL	122dB SPL	LF: 124dB SPL	HF: 126dB SPL	
Components	•		•			•	·	•	•		•		•	•	•	·	•	•	
LF	12" (30cm) Woofer, 3" (76mm) Voice Coil								15" (38cm) Woofer, 3" (76mm) Voice Coil										
HF	Rotatable Constant Directivity Horn, 1.4" (36mm) exit, 1.7" (44mm) Voice Coil Compression Driver								Rotatable Constant Directivity Horn, 1.4" (36mm) exit, 1.7" (44mm) Voice Coil Compression Driver										
Enclosure																			
Dimensions (H x W x D)	695 x 378 x 454 mm (27.4 x 14.9 x 17.9 ")									770 x 448 x 534 mm (30.3 x 17.6 x 21.0")									
Weight	28kg (61lbs)								34kg (75lbs)										
Shape	30° Trapezoidal								30° Trapezoidal										
Material	5/8" (16mm), 11-ply Finnish Birch								5/8" (16mm), 11-ply Finnish Birch										
Finish	Textured Black (Textured White)									Textured Black (Textured White)									
Grill	16 gauge powder coated perforated steel grilles, backed with acoustically transparent reticulated foam								16 gauge powder coated perforated steel grilles, backed with acoustically transparent reticulated foam										
Connectors	1x Neutrik NL4 and barrier strip, wired in parallel								1x Neutrik NL4 and barrier strip, wired in parallel										
Flying Hardware	15x M10 for shoulder eyebolts and U-bracket 4x M8 for 3rd party speaker mount hardware								15x M10 for shoulder eyebolts and U-bracket 4x M8 for 3rd party speaker mount hardware										
Pole Mounts	n/a								n/a										
Handle	n/a									n/a									
Optional Accessory																			
U-bracket	UB2112	(W)								UB2115	(W)								
Array Frame	HAF2-2112(W), HAF3-2112(W), VAF2-2112(W)							HAF2-2115(W), HAF3-2115(W), VAF2-2115(W)											
3rd party accessory																			
Omnimount (US)	120.0 se	ries								120.0 se	ries								
Multimount (US, Allen products)	120 series								120 series										
Powermount (UK)	120 series								120 series										
Ohashi (Japan)	n/a								n/a										

<sup>\* 1:</sup> With recommended YAMAHA DSP configuration.

<sup>\*</sup> Specifications and descriptions in this owner's manual are for information purposes only. Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice. Since specifications, equipment or options may not be the same in every locale, please check with your Yamaha dealer.

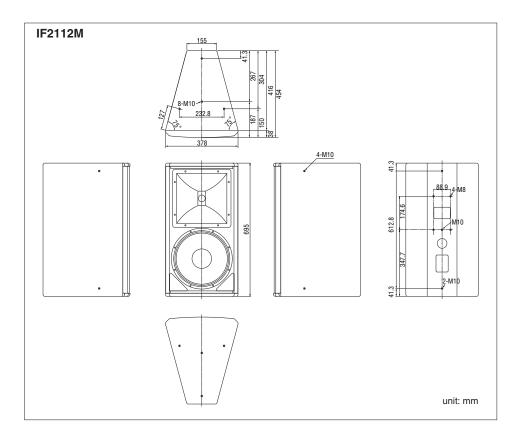
<sup>\*</sup> Die technischen Daten und Beschreibungen in dieser Bedienungsanleitung dienen nur der Information. Yamaha Corp. behält sich das Recht vor, Produkte oder deren technische Daten jederzeit ohne vorherige Ankündigung zu verändern oder zu modifizieren. Da die technischen Daten, das Gerät selbst oder Sonderzubehör nicht in jedem Land gleich sind, setzen Sie sich im Zweifel bitte mit Ihrem

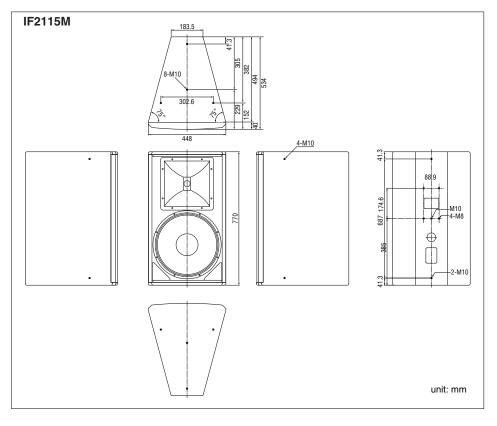
<sup>\*</sup> Les caractéristiques techniques et les descriptions du mode d'femploi ne sont données que pour information. Yamaha Corp. se réserve le droit de changer ou modifier les produits et leurs caractéristiques techniques à tout moment sans aucun avis. Du fait que les caractéristiques techniques, les équipements et les options peuvent différer d'fun pays à l'fautre, adressez-vous au distributeur Yamaha le plus proche.

<sup>\*</sup> Las especificaciones y descripciones de este manual del propietario tienen sólo el propósito de servir como información. Yamaha Corp. se reserva el derecho a efectuar cambios o modificaciones en los productos o especificaciones en cualquier momento sin previo aviso. Puesto que las especificaciones, equipos u opciones pueden no ser las mismas en todos los mercados, solicite información a su distribuidor Yamaha.

<sup>\*</sup>仕様および外観は改良のため予告なく変更することがあります。

# Dimensions





For details of products, please contact your nearest Yamaha representative or the authorized distributor listed below.

Pour plus de details sur les produits, veuillez-vous adresser a Yamaha ou au distributeur le plus proche de vous figurant dans la liste suivante.

Die Einzelheiten zu Produkten sind bei Ihrer unten aufgefuhrten Niederlassung und bei Yamaha Vertragshandlern in den jeweiligen Bestimmungslandern erhaltlich.

Para detalles sobre productos, contacte su tienda Yamaha mas cercana o el distribuidor autorizado que se lista debajo.

#### **NORTH AMERICA**

#### CANADA

Yamaha Canada Music Ltd.

135 Milner Avenue, Scarborough, Ontario, M1S 3R1, Canada Tel: 416-298-1311

U.S.A.

Yamaha Corporation of America

6600 Orangethorpe Ave., Buena Park, Calif. 90620,

Tel: 714-522-9011

#### **CENTRAL & SOUTH AMERICA**

Yamaha de México S.A. de C.V.

Calz. Javier Rojo Gómez #1149, Col. Guadalupe del Moral C.P. 09300, México, D.F., México

Tel: 55-5804-0600

Yamaha Musical do Brasil Ltda.

Rua Joaquim Floriano, 913 - 4' andar, Itaim Bibi, CEP 04534-013 Sao Paulo, SP. BRAZIL Tel: 011-3704-1377

#### **ARGENTINA**

Yamaha Music Latin America, S.A. Sucursal de Argentina Viamonte 1145 Piso2-B 1053,

Buenos Aires, Argentina Tel: 1-4371-7021

#### PANAMA AND OTHER LATIN AMERICAN COUNTRIES/ **CARIBBEAN COUNTRIES**

Yamaha Music Latin America, S.A.

Torre Banco General, Piso 7, Urbanización Marbella, Calle 47 y Aquilino de la Guardia, Ciudad de Panamá, Panamá Tel: +507-269-5311

#### **EUROPE**

#### THE UNITED KINGDOM

Yamaha Music U.K. Ltd.

Sherbourne Drive, Tilbrook, Milton Keynes, MK7 8BL, England Tel: 01908-366700

#### GERMANY

Yamaha Music Central Europe GmbH

Siemensstraße 22-34, 25462 Rellingen, Germany Tel: 04101-3030

#### SWITZERLAND/LIECHTENSTEIN

Yamaha Music Central Europe GmbH, Branch Switzerland

Seefeldstrasse 94, 8008 Zürich, Switzerland Tel: 01-383 3990

#### AUSTRIA

Yamaha Music Central Europe GmbH, **Branch Austria** 

Schleiergasse 20, A-1100 Wien, Austria Tel: 01-60203900

#### CZECH REPUBLIC/SLOVAKIA/ HUNGARY/SLOVENIA

Yamaha Music Central Europe GmbH, **Branch Austria, CEE Department** Schleiergasse 20, A-1100 Wien, Austria Tel: 01-602039025

#### **POLAND**

Yamaha Music Central Europe GmbH Sp.z. o.o. Oddzial w Polsce

ul. 17 Stycznia 56, PL-02-146 Warszawa, Poland Tel: 022-868-07-57

#### THE NETHERLANDS BELGIUM/LUXEMBOURG

Yamaha Music Central Europe GmbH,

**Branch Benelux** 

Clarissenhof 5-b, 4133 AB Vianen, The Netherlands Tel: 0347-358 040

#### FRANCE

Yamaha Musique France

BP 70-77312 Marne-la-Vallée Cedex 2, France Tel: 01-64-61-4000

#### ITALY

Yamaha Musica Italia S.P.A.

Combo Division

Viale Italia 88, 20020 Lainate (Milano), Italy Tel: 02-935-771

#### SPAIN/PORTUGAL

Yamaha Música Ibérica, S.A.

Ctra. de la Coruna km. 17, 200, 28230 Las Rozas (Madrid), Spain Tel: 91-639-8888

#### SWEDEN

Yamaha Scandinavia AB

J. A. Wettergrens Gata 1, Box 30053 S-400 43 Göteborg, Sweden Tel: 031 89 34 00

#### **DENMARK**

**YS Copenhagen Liaison Office** 

Generatorvej 6A, DK-2730 Herlev, Denmark Tel: 44 92 49 00

#### NORWAY

Norsk filial av Yamaha Scandinavia AB

Grini Næringspark 1, N-1345 Østerås, Norway Tel: 67 16 77 70

#### RUSSIA

Yamaha Music (Russia)

Office 4015, entrance 2, 21/5 Kuznetskii Most street, Moscow, 107996, Russia Tel: 495 626 0660

#### OTHER EUROPEAN COUNTRIES

Yamaha Music Central Europe GmbH

Siemensstraße 22-34, 25462 Rellingen, Germany Tel: +49-4101-3030

#### **AFRICA**

Yamaha Corporation,

Asia-Pacific Music Marketing Group

Nakazawa-cho 10-1, Naka-ku, Hamamatsu, Japan 430-8650

Tel: +81-53-460-2313

### MIDDLE EAST

#### TURKEY/CYPRUS

Yamaha Music Central Europe GmbH

Siemensstraße 22-34, 25462 Rellingen, Germany Tel: 04101-3030

#### OTHER COUNTRIES

Yamaha Music Gulf FZE

LOB 16-513, P.O.Box 17328, Jubel Ali, Dubai, United Arab Emirates Tel: +971-4-881-5868

# HEAD OFFICE

Nakazawa-cho 10-1, Naka-ku, Hamamatsu, Japan 430-8650

## Yamaha Corporation, Pro Audio & Digital Musical Instrument Division Tel: +81-53-460-2441

#### ASIA

#### THE PEOPLE'S REPUBLIC OF CHINA

Yamaha Music & Electronics (China) Co.,Ltd. 25/F., United Plaza, 1468 Nanjing Road (West), Jingan, Shanghai, China Tel: 021-6247-2211

#### INDONESIA

PT. Yamaha Music Indonesia (Distributor) PT. Nusantik

Gedung Yamaha Music Center, Jalan Jend. Gatot Subroto Kav. 4, Jakarta 12930, Indonesia Tel: 21-520-2577

Yamaha Music Korea Ltd.

8F, 9F, Dongsung Bldg. 158-9 Samsung-Dong, Kangnam-Gu, Seoul, Korea Tel: 080-004-0022

#### **MALAYSIA**

Yamaha Music Malaysia, Sdn., Bhd. Lot 8, Jalan Perbandaran, 47301 Kelana Jaya, Petaling Jaya, Selangor, Malaysia Tel: 3-78030900

#### **SINGAPORE**

Yamaha Music Asia Pte., Ltd.

#03-11 A-Z Building 140 Paya Lebor Road, Singapore 409015 Tel: 747-4374

Yamaha KHS Music Co., Ltd.

3F, #6, Sec.2, Nan Jing E. Rd. Taipei. Taiwan 104, R.O.C. Tel: 02-2511-8688

#### THAILAND

Siam Music Yamaha Co., Ltd.

891/1 Siam Motors Building, 15-16 floor Rama 1 road, Wangmai, Pathumwan Bangkok 10330, Thailand Tel: 02-215-2626

### OTHER ASIAN COUNTRIES

Yamaha Corporation,

Asia-Pacific Music Marketing Group Nakazawa-cho 10-1, Naka-ku, Hamamatsu, Japan 430-8650 Tel: +81-53-460-2317

### **OCEANIA**

#### **AUSTRALIA**

Yamaha Music Australia Pty. Ltd.

Level 1, 99 Queensbridge Street, Southbank, Victoria 3006, Australia Tel: 3-9693-5111

#### **COUNTRIES AND TRUST** TERRITORIES IN PACIFIC OCEAN

Yamaha Corporation,

Asia-Pacific Music Marketing Group Nakazawa-cho 10-1, Naka-ku, Hamamatsu, Japan 430-8650

Tel: +81-53-460-2313

Yamaha Pro Audio global web site http://www.yamahaproaudio.com/ Yamaha Manual Library http://www.yamaha.co.jp/manual/